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Abstract

This book is a laboratory guide addressed to undergraduate students of Computer Science or related subjects, who are taught a Computer Network Technology course. It includes a series of laboratory exercises aimed at introducing and familiarizing the student with the basic principles of network operation. They are designed in such a way that they last on average 2 (most) or 4 teaching hours. The exact duration may vary depending on the discussion that will take place within the workshop. Also, the exercises are structured in such a way that they can be performed by the student without supervision

and without other equipment. The exercises cover topics both at low operational levels (eg IEEE 802.11b) and at higher ones. Some of the items covered are: Network control commands. Debugging techniques. Analysis of the structure and characteristics of a network. The concept of packet encapsulation and protocol layering. Functional elements of basic Internet protocols (IP, ICMP, TCP, FTP, HTTP). Network simulation (with examples from wireless network operation). Network security scenarios (Firewalls, DMZ, Access Lists). Basic structure of the HTML language. Writing basics and web page formatting.

